not stated, but when asked if this might have been due to unrelieved aortic stenosis they declined to comment. In addition, and as in the present report, most patients had significant residual aortic stenosis. Clearly these results are not as good as those which can be expected with current surgical techniques. The presenter of the French experience then went on to claim that he had not referred a patient for surgery for over a year. The mortality for this group, and the functional results, were not available. This widening indication for valvuloplasty in the absence of verifiable data and in the light of published surgical results over many years concerns us.

As a caveat we would like to point out from our own intraoperative studies that if this technique is to be used a balloon inflation time of one minute is not necessary, and is probably dangerous.[4] Prolonged obstruction to ventricular outflow must result in further dilatation of an already overstretched myocardium. It has been known for many years that this may cause irreversible damage. Several of the reported deaths with this technique appear to have been due to this mechanism. We found that an initial inflation time of 15 seconds was sufficient to open the valve orifice by a measurable amount. Further short periods of inflation could then be used. This problem may in part be avoided by the use of trefoil shaped balloons.

We are anxious to join with Dr Jackson and colleagues to counsel against the uncontrolled and unrestricted spread of this procedure to the detriment of patients with aortic stenosis in Britain.

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1 Jamieson WRE, Dooner J, Munro A, *et al.* Cardiac valve replacement in the elderly: a review of 320 consecutive cases. *Circulation* 1981;**64**(suppl 11):177-83.
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SIR,—We agree with Dr Jackson and colleagues (10 January, p 83) that the experience of percutaneous transluminal valvuloplasty in patients with aortic stenosis does not support its widespread use in patients fit enough for the excellent alternative of aortic valve replacement; indeed, we believe that the authors do cardiac surgeons an injustice by quoting an operative mortality of 7-10% for this operation: in the series they cite there were only nine deaths in 190 aortic valve replacements in patients aged 65 years and older,[1] the operative mortality of 4·7% being very close to the British figure of 4·6% for all age groups in 1982 (unpublished data for 1984 show a slight further reduction to 4·1%).[2]

Our own experience with aortic valvuloplasty in 13 patients, aged 56-80, is encouraging, and, like the King's College Hospital group, we have some patients who are much improved, even asymptomatic, as long as nine months after the procedure. We have, however, encountered a number of important complications (table). The deaths occurred in patients in whom the procedure was attempted virtually as a "last ditch" manoeuvre in the treatment of intractable pulmonary oedema. Severe symptomatic hypotension was seen in four patients, two of whom became completely unconscious during each balloon inflation; clearly in some patients complete occlusion of the valvar orifice occurs, and in two such patients symptomatic hypotension was not prevented by the use of a Trefoil balloon, previously believed to allow continued blood flow during valve dilatation.[3] Fortunately, we have not experienced the bursting of balloons frequently; this has happened only twice (one patient developed minor neurological symptoms that we assume were caused by air embolism, the inflation system being difficult to purge competely). The most worrying late complication was a stroke (which we assume was embolic in aetiology) in one patient 16 days after the procedure.

Complications related to aortic valvuloplasty in 13 patients

During procedure:		Early (first 24 h):	
Death	2	Bleeding from groin	2
Symptomatic hypertension	4	Femoral arterial occlusion	1
Burst balloon	2	Late:	
Perforation of left ventricular wall	1*	Stroke	1
		Claudication	1

*Successful pericardiocentesis.

As experience with the technique increases the true incidence of such complications will become apparent. The long term results of the procedure are unknown, but one of our patients, initially rendered asymptomatic for three months, recently reported a recurrence of symptoms and was referred for aortic valve replacement (he had previously refused surgery). We would heartily support the formation of an aortic valvuloplasty register to document the incidence of complications and symptomatic recurrence.

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1 Jamieson WRE, Dooner J, Munro AI, *et al.* Cardiac valve replacement in the elderly: a review of 320 consecutive cases. *Circulation* 1981;**64**(suppl 11):177-83.
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Junior staff and waiting lists

SIR,—Dr C J O'Doherty (24 January, p 248) makes three recommendations for solving the problem of long waiting times for a dermatological outpatient appointment. Two are eminently desirable—better training of medical undergraduates and compulsory attendance in dermatological departments of those on GP vocational training schemes—so that more patients with skin disease can be managed by their GP and not need referral to hospital clinics. The third solution—more dermatological junior doctors—must be dismissed out of hand as unreasonable, impractical, and undesirable.

Nearly 60% of all newly qualified medical graduates in the United Kingdom currently intend to enter general practice. Nearly 10% of all new attendances in GPs' surgeries are for a skin problem. Nearly all medical schools in the UK devote little more than two weeks of the three year undergraduate medical curriculum to the teaching of dermatology. So it is not surprising that most GPs are ill equipped to deal with patients with skin disease. This is a disgrace and no credit to our highly regarded medical training. To state that it is no better in medical schools in other countries is no excuse. No doubt entrenched positions are adopted by those who teach in our medical schools so that changing the time allotted to the different disciplines is resisted, but the deans of medical faculties must intervene and insist that adequate time is spent on dermatological teaching so that the public does not continue to be mistreated by inadequately trained doctors.

Once undergraduates have qualified attendance in dermatological units could be made part of the mandatory training for general practice by the Royal College of General Practitioners. Once they are fully trained as GPs further education is readily available in the form of postgraduate lectures and opportunities to observe in clinics and become members of Stiefel's skin fora in 50 centres.

The suggestion that more junior doctors should help with the problem is, however, totally unacceptable. If they were employed to help with new outpatients their services would be of no greater benefit to the patient than those already provided by the GP referring the patient to the clinic. To expect junior doctors to deal only with viral and seborrhoeic warts and to undertake procedures and biopsies would deter them from wanting to understand the problems of skin disease. In addition, an increase in the currently low ratio of junior to senior doctors in dermatology would be disastrous for the job prospects of those entering dermatology to become consultant dermatologists. The balance of posts is about right, and the present problem of finding a consultant post is the result of the large number of soft money research jobs in some professorial units, a problem that might soon be solved.

If long waiting times are a result of inadequately trained GPs referring too many patients then better training may solve this problem in time, but where outpatient referrals have risen because more patients require consultant advice then more consultant dermatologists are needed not more junior doctors.

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Mozart ear and Mozart death

SIR,—The paper by Dr Alex Paton and colleagues (20-27 December, p 1622) raises a crucial question: is there any significant relation between Mozart's "Mozart ear" and his terminal illness?

Mozart is thought to have suffered from a chronic kidney ailment and died from renal failure with a clinical picture of uraemia.[1-4] At the age of 28 he showed clinical signs of renal disease, probably pyelonephritis. From the age of 34 he showed increasing and accumulating signs of renal failure. He may have suffered from a terminal infection such as bronchopneumonia but one major immediate cause of death was the repeated blood lettings in a patient likely to be already anaemic.[5,6] Mozart's physicians would normally draw up to three litres of blood over a week from patients suffering from severe terminal syndromes similar to his.[6]

His kidney condition is generally attributed to a hypothetical glomerulonephritis that he might have had in childhood after repeated episodes of upper respiratory tract infections.[1-4] But there is an alternate hypothesis that has never been mentioned: congenital anomalies of the urinary tract.

In 1957 Hilson showed that malformation of the ears may be a sign of malformations of the urogenital tract,[6] and more recent publications have confirmed this association.[7-9] Various malformations of the urinary tract have been described with this syndrome, such as renal agenesis, polycystic kidneys, pelvic obstructions, ureteral anomalies, etc.

Mozart ear alone is an autosomal inherited trait. The association of external ear anomalies with urogenital abnormalities may or may not be genetic, but Mozart's ear anomaly was probably genetic since it was probably transmitted from Mozart to one of his sons, as indicated by Dr Paton and colleagues. EUROCAT, action of the European Community for the epidemiological surveillance of congenital anomalies, provides population based data on the association between ear and urinary abnormalities. Out of a population of 17 434 cases of congenital anomaly (live births 15 862, stillbirths 929, and aborted fetuses 643) registered in a reference population of 770 626 births from 1980 to 1983 in 18 EUROCAT registries the number of cases of congenital anomaly of the ear was 623 and the number of cases with an anomaly of the urinary system 911; 78 had both anomalies, indicating that the association is more frequent than by chance ($\chi^2=69{\cdot}4$, 1 df). The urinary malformations were renal agenesis in 36 cases, cystic kidney in 20, obstructive defect of the ureter in 6, other anomaly of the kidney in 15, other anomaly of the ureter in five, and anomaly of the bladder and the urethra in eight.

Mozart probably did have at least one Mozart ear, though some doubt this.[10 11] If he did, and taking account of the fact that he did have a chronic kidney ailment, there is a strong case for some sort of congenital anomaly of the urinary tract as the underlying cause of his death.

I thank Dr P de Waele for providing the data from EUROCAT, and Mrs G Geffray from the Bibliothek der Internationalen Stiftung Mozarteum Salzburg for bibliographical help.

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Points

Coffee, chlorogenic acid, and cholesterol

Drs A K KOTHARI, G H B MARTIN, and M T C WOO (Nuneaton CV11 5TW) write: Drs M N Clifford, R Walker, and J Wright (31 January, p 312) state that coffee composition must be controlled in any investigation of a proposed relation between coffee, cholesterol metabolism, and bile acid excretion[1]; they emphasise the importance of chlorogenic acid concentrations in coffee. We recently completed a study of six volunteers who drank instant dark roast coffee of known chlorogenic acid content: 3·85% dry base. The volunteers drank six or more cups of black coffee, averaging 113 mg coffee/kg body weight daily. All volunteers underwent estimations of cholesterol concentrations at weekly intervals. After two baseline estimations they drank tea without milk for three weeks, followed by black coffee for three weeks. There was a non-significant reduction in serum cholesterol concentration while the subjects drank tea, followed by a non-significant increase in cholesterol concentration while they drank black coffee. These results were similar to those of a previous study of six volunteers drinking coffee of the same chlorogenic acid content.[2] The chlorogenic acid content of coffee varies considerably; some dark roast ground coffees may have as little as 0·18% dry base chlorogenic acid, whereas mild roast soluble powders contain up to 10·73% (M N Clifford, personal communication). Chlorogenic acids include cynarine[3] and are known to reduce serum cholesterol concentration, yet some studies have shown a definite increase in cholesterol concentration in coffee drinkers.[4 5] This suggests that coffee contains hypercholesterolaemic factors as well as hypocholesterolaemic ones like chlorogenic acid. We have suggested (20 April 1985, p 1216) that the hypercholesterolaemic factor may be a surface active agent. Despite equivocal findings in these two small studies using coffee with a medium chlorogenic acid concentration further investigation of coffees with high and low concentrations is needed.

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Dr M R JACYNA (Department of Medicine, Ninewells Hospital and Medical School, Dundee DD1 9SY) writes: Several studies have shown an association between raised faecal bile acids and an increased risk of colonic cancer,[1 2] but the evidence for a similar link between faecal cholesterol concentrations and colonic cancer is at best inconsistent.[3] A far more plausible and simple explanation is that coffee consumption by an individual reduces bile acid synthesis rates. Dr Bjame K Jacobsen and Professor Dag S Thelle (3 January, p 4) have already reviewed evidence suggesting that coffee consumption may have an effect on specific hepatic enzymes, and data also show that caffeine has an effect on cytochrome P-450,[4] which is required by cholesterol 7-α hydroxylase, the rate limiting enzyme for bile acid biosynthesis.[5] As the major portion of cholesterol aimed at bile acid synthesis appears to be derived from the plasma lipoproteins[6] a reduction in bile acid biosynthesis might be expected to cause an increase in serum low density lipoprotein (LDL) cholesterol concentrations, and this has already been observed during treatment with chenodeoxycholic acid,[7] which reduces bile acid synthesis rates.[8] A similar effect is also seen with aging, where LDL cholesterol values increase as bile acid synthesis rates are reduced,[9] even though hepatic cholesterol biosynthesis remains the same.[10] As well as explaining the increased serum cholesterol concentration the proposed reduction in bile acid synthesis rates induced by drinking coffee may also explain the reduced risk of colonic cancer (by reduced synthesis of bile acids and consequent excretion into the gut).

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Controlled trial of a new cervical spatula

Dr C D SIDE (Tring, Herts) writes: Unfortunately the results of Dr Margaret R Wolfendale and others (3 January, p 33), in their welcome attempt to reduce the number of false negative smears, were sadly unconvincing because they underestimated the effect of human nature. While the reporters of the slides may have been blind (statistically speaking) the takers of the smears were certainly not. Possible bias at this point could not have been nullified by changing the order of use of the Ayre and trial designs as suggested in the paper. The Ayre spatula is in general use and as far as the taker was concerned the beginning of the study would have been at the point when the new spatula was introduced. Using a new instrument will consciously or subconsciously increase the degree of care exercised in its use—in this case the care exercised by the doctor or nurse in taking the smear with the new spatula. That the degree of care taken is important in the quality of the smear is not in dispute. The magnitude of this variable is difficult to determine and impossible in this particular study design. But it may have been of a similar magnitude to the apparent improvement in cellularity of smears and the increase in number of abnormal smears found associated with the trial spatula. The uncertainty could have been reduced by using two new designs, one very similar to the Ayre but sufficiently dissimilar to register with the smear taker, in addition to the Ayre design.

Reversal of female sterilisation

Mr IAN PAGE (Church Crookham, Hants GU13 0LP) writes: Mr J P Calvert (17 January, p 140) rightly emphasises the need for careful counselling of women requesting sterilisation, including the need to emphasise its permanent nature, but then suggests that the technique used (while needing to be effective) should allow reversal. Most patients asking for sterilisation want an operation with the lowest chance of failure; indeed, many are slightly annoyed to find there is a failure rate for all the current techniques. In those cases where the operation does fail they may sue for damages, and large sums have recently been awarded. The failure rate is lower with "cut and tie" methods (particularly if a confirmatory histological examination is carried out) than with laparoscopic techniques, though the latter's failure rate can be reduced by applying two clips to each tube. This is my current practice, but it does destroy more of the tube. Given that adequate counselling of patients should include discussion of change of circumstances, I feel that the technique used should be the one that gives the lowest failure rate with minimum morbidity rather than that most amenable to reversal. There are after all many other forms of temporary contraception. Whether it is morally right to expend scarce NHS resources in reversing "social" operations when there is a large waiting list of patients requiring medically indicated procedures is a question that every gynaecologist should also consider before agreeing to attempt the procedure.

Correction

How much should private medicine cost?

An error occurred in this letter by Dr M G Wright (7 February, p 374). The second sentence of the second paragraph should have read: "The inpatient stay for this was under 24 hours but did include overnight accommodation."